The State of Utah

Department of Natural Resources

Division of Oil, Gas & Mining

ROBERT L. MORGAN
Executive Director

LOWELL P. BRAXTON
Division Director

OLENE S. WALKER
Governor

GAYLE F. McKEACHNIE
Lieutenant Governor

Inspection Report

Representatives Present During the Inspection:	
OGM	Steven Fluke Environmental Scientist II
Other	Erik Petersen

Permit Number:	C0150032
Inspection Type:	TECHNICAL
Inspection Date:	Wednesday, March 31, 2004
Start Date/Time:	03/31/2004 8:30:00 AM
End Date/Time:	03/31/2004 4:30:00 PM
Last Inspection:	Wednesday, March 31, 2004

Inspector: Steven Fluke, Environmental Scientist II

Weather: sunny, clear, and calm, ~60 to 70 F

InspectionID Report Number: 231

Accepted by: dhaddock
04/12/2004

Permitee: GENWAL RESOURCES INC
Operator: GENWAL RESOURCES INC
Site: CRANDALL CANYON MINE
Address: PO BOX 1077, PRICE UT 84501
County: EMERY
Permit Type: PERMANENT COAL PROGRAM
Permit Status: ACTIVE

Current Acreages

5,195.80	Total Permitted
10.70	Total Disturbed
	Phase I
	Phase II
	Phase III

Mineral Ownership

- [x] Federal
- [ ] State
- [ ] County
- [ ] Fee
- [ ] Other

Types of Operations

- [x] Underground
- [ ] Surface
- [ ] Loadout
- [ ] Processing
- [ ] Reprocessing

Report summary and status for pending enforcement actions, permit conditions, Divison Orders, and amendments:

The purpose of this inspection was to observe the Crandall Canyon quarterly water monitoring protocol by accompanying the mine consulting hydrologist, Erik Petersen, during the first quarter water monitoring. At the time of the inspection, ground conditions were generally dry on the south and west exposures with snow cover up to a couple of feet in shaded gullies and north and east exposures. Overall conditions were probably typical for late first quarter water monitoring (this was the last day of the first quarter, March 31). According to Erik Petersen, we could not access spring and stream monitoring sites in the Joes Valley/Indian Creek area because of snow cover and the access is closed to traffic.

Inspector's Signature: /S/ **Date** Wednesday, April 07, 2004

Steven Fluke, Environmental Scientist II
Inspector ID Number: 53

Note: This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining

REVIEW OF PERMIT, PERFORMANCE STANDARDS PERMIT CONDITION REQUIREMENT

1. ***Substantiate the elements on this inspection by checking the appropriate performance standard.***
   a. ***For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.***
   b. ***For PARTIAL inspections check only the elements evaluated.***
2. ***Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.***
3. ***Reference any narratives written in conjunction with this inspection at the appropriate performace standard listed below.***
4. ***Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.***

	Evaluated	Not Applicable	Comment	Enforcement
1. Permits, Change, Transfer, Renewal, Sale	☐	☐	☐	☐
2. Signs and Markers	☐	☐	☐	☐
3. Topsoil	☐	☐	☐	☐
4.a Hydrologic Balance: Diversions	☐	☐	☐	☐
4.b Hydrologic Balance: Sediment Ponds and Impoundments	☐	☐	☐	☐
4.c Hydrologic Balance: Other Sediment Control Measures	☐	☐	☐	☐
4.d Hydrologic Balance: Water Monitoring	☐	☐	☑	☐
4.e Hydrologic Balance: Effluent Limitations	☐	☐	☐	☐
5. Explosives	☐	☐	☐	☐
6. Disposal of Excess Spoil, Fills, Benches	☐	☐	☐	☐
7. Coal Mine Waste, Refuse Piles, Impoundments	☐	☐	☐	☐
8. Noncoal Waste	☐	☐	☐	☐
9. Protection of Fish, Wildlife and Related Environmental Issues	☐	☐	☐	☐
10. Slides and Other Damage	☐	☐	☐	☐
11. Contemporaneous Reclamation	☐	☐	☐	☐
12. Backfilling And Grading	☐	☐	☐	☐
13. Revegetation	☐	☐	☐	☐
14. Subsidence Control	☐	☐	☐	☐
15. Cessation of Operations	☐	☐	☐	☐
16.a Roads: Construction, Maintenance, Surfacing	☐	☐	☐	☐
16.b Roads: Drainage Controls	☐	☐	☐	☐
17. Other Transportation Facilities	☐	☐	☐	☐
18. Support Facilities, Utility Installations	☐	☐	☐	☐
19. AVS Check	☐	☐	☐	☐
20. Air Quality Permit	☐	☐	☐	☐
21. Bonding and Insurance	☐	☐	☐	☐
22. Other	☐	☐	☐	☐

4.d Hydrologic Balance: Water Monitoring

Erik and I met at 8:30 am in Price and we first drove to SGS Laboratories outside of Huntington to collect sample bottles and coolers. We monitored all of the accessible stream and spring monitoring sites for the existing Crandall Canyon Mine and proposed South Crandall Canyon Lease. Field measurements include temperature, specific conductivity, pH, and dissolved oxygen were taken at each monitoring station with calibrated field instruments. Samples were collected at appropriate sites for laboratory analysis in one half-gallon plastic bottle and two 500 ml plastic bottles. Water monitoring sites visited and observations are as follows:

Little Bear Spring (LBS) - We met Randy and Blane of the Castle Valley Special Service District (CVSSD) at Little Bear Spring (LBS). They needed to divert the flow of LBS for sampling because it is mixed with water from Tie Fork springs and Big Bear Spring prior to being piped to the treatment plant at the mouth of the canyon. Only the total flow through the pipeline can be read in the field (480 gpm today). The LBS discharge needs to be calculated by Darrel of CVSSD for a monthly discharge average.

Little Bear Creek – No flow.

SP-30 – This spring is located in Crandall Canyon on the south-facing slope approximately 800 feet above the mine. The spring is identified as a grassy, weeping area without a well-defined discharge point within the Blackhawk Formation. Erik locates the highest discharge point for flow measurement and assumes that his measured flow is one-quarter of the total flow. Erik collects field measurements and a one pint plastic bottle to be analyzed for total nickel as part of a study for the USGS.

SP-36 – This spring is located within the Blackhawk Formation approximately 200 feet above and 1,000 feet east of SP-30. According to Erik, this spring, as well as SP-30, have had measurable flow since Erik began monitoring for Genwal Resources in September 2000. Prior to that time, both springs were reported to have no flow for most of the monitoring events since baseline measurements. Given that the springs have been flowing during drought conditions since 2000, it is doubtful that the springs had no measurable flow throughout the 1990s. Erik collected field measurements and bottles for laboratory analysis.

IBC-1 – This stream monitoring site is located approximately 300 feet up the canyon at the southwest corner of the facility parking lot. Snowed under, no flow.

UPF-1 – Upper flume of Crandall Creek. The flume was in good condition with

possibly some water (~10 gpm) bypassing the south side of the flume. Gauge reading 1.1, but we don't have the conversion table with us. We estimate creek flow between 150 and 250 gpm. Erik collects field measurements and bottles for laboratory analysis.

LOF-1 – Lower flume of Crandall Creek. The flume has been turned into a beaver dam since last fall. Erik has had problems with the beaver in the past, but he had always been able to remove the beginnings of a dam. There are at least four other dams within 100 feet downstream of the flume. Some washout has occurred along the stream channel as the water bypasses the dams. We will need to have the beaver removed to maintain the flume and monitoring station. We measure flow in stream channel downstream of drowned flume using the equal width increment (EWI) method with a wading rod at four-inch intervals. Erik collects field measurements and bottles for laboratory analysis.

Horse Creek – Measure flow at culvert beneath highway with a cooler (12 gal) and stopwatch. Erik collects field measurements and bottles for laboratory analysis.

Section 4 Creek – Access this intermittent creek by crossing Huntington Creek. Erik measures flow at 8 gpm. and collects field measurements and bottles for laboratory analysis.

Following sampling, we returned to the laboratory and Erik submitted the samples for analysis under chain-of-custody.